# Method for forming fluorinated ionomers

**Description of Technology:** This invention concerns a method for forming ionomers by treatment with ammonium carbonate of copolymers having a substantially fluorinated, but not perfluorinated, polyethylene backbone having pendant groups of fluoroalkoxy sulfonyl fluoride. Ionomers derived therefrom by ion exchange are useful in electrochemical applications such as batteries, fuel cells, electrolysis cells, ion exchange membranes, sensors, electrochemical capacitors, and modified electrodes.

**Patent Listing:**

1. **US Patent No. 7,101,938**, Issued September 5, 2006, "Method for forming fluorinated ionomers"

http://patft.uspto.gov/netacgi/nph-Parser?Sect2=PTO1&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&d=PALL&RefSrch=yes&Query=PN%2F7101938

**Market Potential**: This invention concerns ammonium ionomers, and a method for preparing them by contacting a polymer having a substantially fluorinated, but not perfluorinated, polyethylene backbone having pendant groups of fluoroalkoxy sulfonyl fluoride, with an excess of ammonium carbonate solution. This invention further concerns a method for forming ionomers by ion exchange with ammonium ionomers. The ionomers so formed are useful in electrochemical applications such as batteries, fuel cells, electrolysis cells, ion exchange membranes, sensors, electrochemical capacitors, and modified electrodes.

**Benefits:**

- Describes a method for preparing ammonium ionomers

**Applications:**

- Electrochemical applications

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